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ABSTRACT

A recent change in classroom (K-12) instruction is the rediscovery of writing's relationship to thinking. Teachers' attitudes about writing can affect their students' attitudes. Positive attitudes have a positive influence; however, many teacher education students and inservice teachers have negative attitudes toward writing. Since improved teacher attitudes could improve writing instruction, an 70-item instrument was constructed to measure attitudes toward writing and thinking using a Likert scale of 1 (strongly agree) to 5 (strongly disagree). The Self-Concept as a Writer Questionnaire (SCWQ) includes 44 positive statements and 26 negative statements. In the initial utilization of the instrument, 23 preservice education students (3 males and 20 females) at Mississippi State University-Meridian Campus were surveyed to determine their attitudes before (in the spring of 1992) and after attending a course on writing/thinking. To determine internal consistency, a Cronbach alpha of 0.6931 was obtained. A one-way analysis compared pretest and posttest responses. Responses for significant items were graphed for comparison purposes. Potential uses for this instrument include self-evaluations, staff development, and evaluation of courses for teacher education programs and writing workshops. Three appendixes include the SCWQ, a table showing the one-way analysis of variance comparing pretest and posttest responses, and a table showing scale and percentages of responses to pretest and posttest administrations for significant items. (RLC)

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Determining Attitudes Toward Writing/Thinking

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A paper presented at the Annual Meeting of Mid-South Educational Research Association, Knoxville, TN, November 10-13, 1992

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Abstract

A recent change in classroom (K-12) instruction is the rediscovery of the relationship of writing to thinking (Emig, 1977; Elbow, 1981; Murray, 1990; Graves, 1983). Attitudes of teachers toward writing may affect their students' attitudes (Smith and Dahl, 1984). Positive attitudes generally influence in a positive direction; however, many teacher-education students and in-service teachers report negative attitudes toward writing. Because improved teacher attitudes could improve writing instruction, an instrument was constructed to measure attitudes toward writing and thinking. This 70-item instrument employed a Likert scale of One (Strongly Agree) to Five (Strongly Disagree).

In the initial utilization of the instrument, 23 pre-service education students were surveyed to determine their attitudes before and after a course in writing/thinking. To determine internal consistency, a Cronbach alpha of .6931 was obtained. A oneway analysis compared the pre-test and post-test responses. Responses for significant items were graphed for comparison.

Potential uses for this instrument include: self-evaluations; staff development; and evaluation of courses for teacher-education programs and writing workshops.

Introduction

Determining Attitudes Toward Writing/Thinking

A recent trend in education has been the emphasis on writing skills in the kindergarten through twelfth grades. In the early 1970's a movement began to reintroduce and to redefine the teaching of these skills. Writing was viewed as a correlate of higher order thinking skills; and, thus, the writing concepts which expressed language in visual form enabled the writer to gain, or enhance, cognitive skills such as analysis, synthesis, and evaluation. According to McBee (1972), "Writing is essentially thinking, or at least involves thinking as its first requisite. All people can think, or at least they think they think. But few people can say what they think, that is, say it with sufficient power of language to convey it to the full (p. 3)." McBee's (1972) definition of writing is succinct, "If we put our thoughts into words and write them down, that is writing (p. 5)." Murray (1990) quoted E. M. Forester,who put the writing experience in these terms, "How do I know what I think until I see what I say (p. 27)."

Out of this early impetus relating writing and thinking grew various projects and workshops which served to promote the cause of writing:

across the curriculum, across the disciplines, across all grade levels, across all the spectrum of student abilities; in other words, writing became an essential skill for all students. Examination of the changes in our society and our career orientations also reveal a need for increasing skills with information processing. Toffler identified the new era as the Information Age (Future Shock 1970). Despite the earlier identification of information as the newest and most clearly identifiable trend for commercialization and career orientation in the future, the schools have persisted in developing a back-to-basics system that, in essence, teaches students to perform jobs that will no longer even exist in the next ten to twenty years. Ornstein (1989), in considering the future said, "The future is now! . . . The historic role of the schools is to prepare citizens for their future roles in society. But if educators are confused about or 'misread' the future, they may create curricula that do not address students' needs or societal needs. They may even add to social and economic problems. Educators must prepare students to think about the future and to prepare for it (p. 46)." Ornstein further identified the components of a future-oriented curriculum which "should comprise six areas of study: having access to information, thinking logically,

communicating effectively, understanding the physical environment, understanding the individual and society and enhancing personal competence (p.47)." Teacher education requires that the future teacher develop some experience with teaching writing in the classroom. In order to determine how best to help these prospective teachers develop writing skills and the accompanying attitudes of acceptance and encouragement which must be demonstrated in the classroom for students to gain the appropriate writing skills, a survey for assessing teacher-education majors' attitudes toward themselves as writers and their students as writers was developed. It seemed necessary to discover what these future teachers think about writing in order to ensure that the writing instruction they deliver in the classroom is not only functional but also permits students' individual expression and creativity. Because prior experience with teacher-education students had shown some negative attitudes toward writing activities resulting from their previous writing experiences, it was determined that a survey before and after the class of Writing for Thinking would be of great assistance to discover the existence of these attitudes and learn how they could be turned into positive qualities in the classrooms of the future. The

research question was: "Does a class in writing which employs many of the positive aspects of writing instruction developed in the past twenty years enhance teacher-education students' attitudes toward themselves and their students as writers?" A seventy-item survey was developed which contained a mix of 44 positive statements and 23 negative statements. A Likert scale of one through five was employed to assess the responses. One represented Strongly Agree and five represented Strongly Disagree. The initial survey was done with twenty-three students who were enrolled in a Writing for Thinking class at Mississippi State University-Meridian Campus. The students volunteered to complete the survey.

Review of Literature

According to Camp (1982), "What we now know about the teaching of writing comes to us not only from the world of research but also from the world of the classroom. Both sources of knowledge are equally important (Preface)." Camp was a part of The Bay Area Writing Project, begun in 1973, to introduce and to advance the knowledge of writing. Its proponents formulated key assumptions which were included in the staff development component of this project. Certain of these key

assumptions, which apply to the present research, were:

> that while most teachers in the schools have never been adequately trained as teachers of writing, there are, nevertheless, teachers at all levels--elementary school through university--who out of necessity have learned how to teach students to write and have, through trial and error and in the privacy and isolation of their own classrooms, developed effective approaches to the teaching of writing; . . .
>
> that teachers of writing must write themselves; that they need to experience regularly what they are asking their students; that they need to discover and understand the process of writing they are teaching through their own writing; . . .
>
> that real change in classrooms happens over time; . . .
>
> that effective programs (which) improve student writing should involve teachers from all grade levels and teachers from all content areas; that the idea of writing as a way of learning is an idea that teachers across the curriculum and across grade levels find compelling (Preface).

Assumptions such as those of the Bay Area Writing Project were

integrated into many other theories about writing, as well as into various other projects around the United States.

Another set of guidelines for teaching composition came from the members of the National Council of Teachers of English Commission on Composition (1974). Their official position was designed to help teachers in planning curricula and in teaching writing. Of particular interest was the second item on the Commission's list of general principles:

> Writing is an important medium for self-expression, for communication, and for the discovery of meaning--its need increased rather than decreased by the development of new media for mass communication. Practice and study of writing therefore remain significant parts of the school curriculum and central parts of the English course (pp.219-220).

Also included in the Commissions's list was the following statement, "Since a major value of writing is self-expression, instruction in writing should be positive (pp. 219-220)." The major emphases in positive instruction were to encourage the students' use of clear, vivid and honest language; to prevent the customary evaluations which were negative correction and proscription; and to free students from fear about writing

so that their sensitivity and abilities could develop. The Commission suggested that writing practice should be emphasized and that former methods of writing instruction were unsuitable substitutes for writing. Furthermore, the Commission stressed the necessity of frequent opportunities to write.

Howard (1984) examined attitudes toward writing. He suggested that no teacher would really seriously contend that writing doesn't matter but that most teachers are daunted by the paperwork generated by involvement with writing assignments. Howard related writing to learning and knowing. His view of learning was that it is a process of sorting information to make sense out of it. According to Howard, some thinking skills associated with writing were(are): decision making, problem solving, critical thinking and more (p.28). Howard further stated that writing in school must be worthwhile or it is a waste of time. Writing should furnish students with an opportunity to learn something. Further, "in order for writing to be an effective instructional practice, teachers and students must accept it as--and expect it to be--a regular practice (p. 28)." Writing belongs in every subject, but "There is no package of strategies that, unwrapped, will install writing in any teacher's classes. Nor is there one

right way to make effective use of writing. Ultimately, however, everyone has to find, and follow, the way or ways that suit one's own purposes and styles. There are countless ways. The objective is to keep students working their own way through the content of education. The goal is better teaching, sounder learning (p. 43)." Howard's conclusion verified the necessity of writing instruction in today's classrooms: "It is my conviction that unless schools and teachers recognize and exploit the relationship of writing to learning, literacy will not rise much above the 'functional' level, and learning in school will continue to be what is for countless American young people today--the uncertain accumulation of information, most of it unrelated, and much of it trivial (p. 43)."

Young and Fulwiler (Eds., 1986) introduced their Writing Across the Disciplines: Research into Practice with these statements: "The idea that writing is the business of the whole school community has been long supported by scholars in composition, including James Moffett, James Britton, James Kinneavy, Mina Shaughnessy, and Janet Emig. Collectively, they have argued that writing will not improve substantially until students see writing at the center of their academic curriculum; that is, until they learn to value writing, and to practice it in the daily business

of learning in all disciplines (p. 1)." Young and Fulwiler cite the number of colleges and universities which have instituted programs for writing-across-the-curriculum over the past ten or more years. The representative cross-section includes small, liberal arts colleges and the larger state universities, as well as Ivy League schools. There is a wide variety among the programs, but all the programs seek to improve students' writing and to improve their use of writing in all areas of the curriculum. An extensive writing-across-the-curriculum program requires students to engage in thoughtful writing activities in all disciplines and at all levels. This increases the responsibilities for assigning and grading on all the teachers involved, but, likewise, it means that "language instruction becomes the business of all teachers who use language (p. 2)." The principles that Young and Fulwiler used in their workshops to train faculty to use writing-across-the-curriculum included: "(1) language is a tool for learning; (2) writing must be viewed as a process as well as a product; (3) students have difficulty writing for a variety of reasons, which we can often identify and then address (p. 2)." In examining writing across the curriculum, Young and Fulwiler were exploring the process of research as well; their results were tentative, but these results could have future

benefits well beyond the scope of the present research. The text which Young and Fulwiler produced from their six-year experiment with writing is divided into various sections which address the writing research, the evaluation of the program, the individual classroom efforts by instructors in classrooms across the campus at Michigan Tech, and the possibilities that the research revealed, along with the problems encountered. One of the most important findings with implications for the present research was: "Short-term attitude changes don't guarantee long-term pedagogical change (p. 241)."

From an entirely different level and perspective of writing, Tiedt (1975) wrote about both reading and communication skills. Her concern was with the enjoyment of language that is necessary for children as they experiment with ways to express their ideas in writing. Tiedt (1975) dealt with elementary students' writing; her suggestions for successful experiences in the elementary classroom included climate, one that produced a feeling of respect for one another and for the writing products of every student. She further cited positive reinforcement as one of the most essential elements in a writing program. Conveying positive attitudes by displaying students' writings, by giving students time

and interest, by sharing writing in small groups and by publishing class and individual booklets fostered this concept of positive reinforcement. Furthermore, Tiedt (1975) identified the necessity of making evaluation a positive experience as a means of fostering positive attitudes. Individualized writing provided the mechanism for student growth and skills development. According to Tiedt (1975) an area for consideration and interest to teachers of all levels of instruction was the learning center. "This approach has long been used in elementary school classrooms but is equally appropriate for junior and senior high school classrooms. The learning center has many advantages. For one thing, the learning activities are more enjoyable than those associated with more traditional approaches. The interaction with other students is an important element. . . .The role of the teacher becomes that of a resource person, a facilitator, as students take the initiative in planning learning experiences (pp. 3-4)." Tiedt's remarks about elementary classrooms furnished a necessary perspective for examination of materials related to Writing for Thinking, especially since many of our future teachers plan to work in elementary positions; but she also furnished some information of interest to prepare teachers of other levels and areas. Calkins (1986) made

these statements about teaching writing, "Human beings have a deep need to represent their experience through writing. . .By articulating experience, we reclaim it for ourselves. Writing allows us to turn the chaos into something beautiful, to frame selected moments in our lives, to uncover and to celebrate the organizing patterns of our existence. . . (p. 3)."

Graves (1983) cited the urge that children have to write as the strongest reason for learning how to write and how to teach writing. Misunderstanding of the writing process and what children do when writing causes teachers to take control away from their students and thus inhibits the students' urge to write. When teachers model control of their own writing process, students can begin to view writing as a craft they can practice themselves. Efforts to promote writing from K to 12 are not new, and the concept that children are unable to write unless they can read is not true. We often make assumptions about what children can do and how teachers are to teach without a legitimate basis for such assumptions. Also, teachers bring negative attitudes about their abilities to use the writing process and their teaching of it to the classroom. Graves (1983) said, "The teaching of writing demands the control of two

crafts, teaching and writing. They can neither be avoided, nor separated (p. 5)." Graves (1983) also suggested that teachers practice the craft of writing just as they practice the craft of teaching. Teachers who write know that students must maintain control of their own information. Also, the teacher must recognize that the writing process must be approached in an unhurried manner, allowing time for the child to give energy of control and ownership to the piece. Graves (1983) also said, "The teacher has to know the subject, the process, the children, and the means for the children to become independent learners (p. 11)." The tone for writing is set by the teacher and what he/she does. Also, according to Graves (1983), "Data show that most children entering first grade (about 90 percent) believe they can write; only fifteen percent believe they can read (p. 18)." Teaching should foster and promote the belief that children have concerning writing. Solutions to teaching writing effectively don't come easily. One must be willing to work, to think, and to act differently from the stereotypical notions of former classroom requirements. No one specific way will work best every time; thus, it is important for teachers to know the writing process for themselves and to develop open, caring attitudes about their students and those students'

writing experiences. Furthermore, a willingness to model writing behaviors is essential for each and every effective teacher.

Finally, Hull (1989) furnished insight into research on writing, "In the last 20 years, writing research and instruction have been turned on their heads. We have learned to think differently about the nature of writing and the abilities of students and how we can best teach them to write. The rallying point of these revolutions has been the concept of writing as an activity, a process with an identifiable set of behaviors and cognitions. To think of writing as an activity, something that one does, is more commonplace than surprising. But to think of writing as an activity that can be studied, analyzed, and understood, that can, in short, be demystified--this is indeed revolutionary, for it turns writing into something that can be acquired rather than something one either possesses or lacks... (p. 105)." Hull (1989) concluded with these remarks,

> After years of examining the texts that writers produce or their individual writing processes, researchers have started to study texts and processes through the lens of context. Central to this shift is the belief that writing is embedded within society and depends for its meaning and its practice upon social institutions

> and conditions. Viewing writing in this way throws in bas-relief the actual roles that writing can play in people's lives as well as the conditions under which it is acquired. The result of such investigations has not been a devaluation of writing, but an appreciation of its social basis, in particular, the varied ways social context affects knowledge acquisition and orients cognition. Understanding writing, then, has increasingly come to mean an understanding that is at once cognitive and social (pp. 126-127).

Examination of research, recommendations, guidelines, and policies devoted to the promotion of writing furnished the impetus for an examination of writing instruction for future teachers in terms of their attitudes toward writing, their program of preparation for teaching, and their willingness to adapt or change their approaches as they were introduced to new methods and strategies for teaching children K-12 to write. Ideally, the data gathered from the research will furnish insights into the suitability of classroom instruction in Writing for Thinking. A further objective would be the adjustment of writing and evaluation experiences to foster positive attitudes toward the integration of writing into these future teachers' classrooms. Provision of opportunities to

change approaches and attitudes without producing a stressful situation for these teacher-education majors would be a final goal of research into their attitudes toward writing/thinking. The research instrument also provided students with an opportunity to engage in self-analysis and critical thinking about past and future opportunities to develop as writers themselves.

This study examined the attitudes of future teachers toward writing/thinking, themselves as writers, and the role of writing in their future classrooms. The major research question was: Does a class in writing which employs many of the positive aspects of writing instruction developed in the past twenty years enhance teacher-education students' attitudes toward themselves and toward their students as writers? Interest in students' ideas about their own writing experiences was coupled with interest in their beliefs and/or attitudes toward teaching writing.

Methodology

Sample and Setting

The sample was comprised of 23 teacher-education students enrolled in EDF 3413 Writing for Thinking at Mississippi State

University--Meridian Campus. The demographics of the sample were as follows: 3 males and 20 females; 14 students age 20-29, 7 students age 30-39, 2 students age 40-49. Sixteen students planned to teach in lower elementary grades; 3 in upper elementary; zero in middle school/junior high; and 4 in high school. Two students planned to teach language arts; 4 planned to teach social studies; 1 math, 3 science and 13 planned to teach all of these areas in the elementary setting.

The teacher education program at Mississippi State University furnishes a spiral, integrated curriculum of core courses which provide practicum experiences at various points and practice teaching during the final semester. The student teaching experience is coupled with the Professional Seminar and lasts for the entire semester. This program provides students with the required courses for certification in Mississippi.

Instrument

The instrument (see Appendix A) was constructed for the purpose of this research. It consisted of a 70-item survey to measure attitudes toward writing and the teaching of writing. There were 44 positive statements and 26 negative statements. Responses were based on a

Likert scale of One (Strongly Agree) to Five (Strongly Disagree). The instrument was examined by writers and teachers of writers for content validity. This administration of the instrument was also the basis for the determination of internal consistency. A Cronbach alpha of .6931 and a standardized item alpha of .7353 demonstrated sufficient internal consistency according to Cohen (1977).

Data Collection and Analysis

The pretest administration of the instrument opened the first night of instruction in EDF 3413 in the Spring Semester, 1992. The post-test administration occurred after the final examination at the end of the class. For the duration of the class, consistent efforts were made to utilize effective practices from research-based writing programs and projects and to encourage research into such practices by the students themselves.

A oneway analysis of variance compared the pretest administration to the post-test administration. All 23 students completed both administrations; therefore, no cases were lost between the pretest and post-test. The .05 level of significance was used for this analysis.

Results and Discussion

The 20 items which were significantly different at .05 level of significance are shown in Table 1.

(Insert Table 1 here.) (See Appendix B)

Item 2 stated: "Writers are born, not made/taught." (See Table 2 for Appendix C.) For this statement, 13% of the pretest respondents chose Undecided. Only 4% of post-test respondents chose Undecided. The shift of responses to 65% for Disagree and 31% for Strongly Disagree represented an attitude change toward a writing stereotype. Instruction was designed to provide students with an understanding that writing is not a "gift" but is rather a craft that can be learned.

Item 3 stated: "All writers utilize a specific program which works best for them." (See Table 2) The pretest responses for this item were: Strongly Agree (22%); Agree (22%); and Disagree (4%). After the period of classroom instruction, post-test responses were: Strongly Agree (43%); Agree (43%); Undecided (9%); and Disagree (4%). The switch to Undecided was not anticipated since part of the instruction was based on presenting various authors' methods of finding and using a suitable writing process (Examples were Didion, Murray, Graves, and Orwell).

The expected increase in Strongly Agree was the anticipated change. This attitude change indicated that students were receptive to the idea of a writing process for utilization by themselves and by their students.

Item 4 stated: "No professional writer could teach another person how to write." (See Table 2). For the pretest, 74% reported Disagree; 22% reported Strongly Disagree; and 4% reported Undecided. For the post-test administration, 74% reported Disagree; 18% reported Strongly Disagree; 4% reported Undecided, but 4% also reported Strongly Agree. This indicated a change in comprehension of the statement and might be the appropriate, if somewhat subtly reasoned, response, if we assume that learning is a two-way street. A professional writer can teach another person how to write; but only the development of the writer's own individual writing style and process will complete the educational process. Most of these students apparently felt that professionals can teach others to write when they hold institutes or workshops; but they also indicated in class discussion that writing is inherently an individual thing, not necessarily learned only as the result of someone else's teaching. Only one respondent reported a depth of understanding of what the professional writers were showing in their writings about process.

Murray (1990) stated, "In the end, the writer at eighteen or eighty is alone with the writer's own experience and the writer's own language. The writer, in that loneliness, keeps learning to write (p. x)."

Item 5 stated, "Writers should learn a process which best suits their personalities." (See Table 2.) In the pretest, 30% reported Strongly Agree, 61% reported Agree; and 9% reported Undecided. After instruction, the responses to the post-test were: 61% Strongly Agree; 30% Agree; and 9% Undecided. The shift in responses from Agree to Strongly Agree indicated a strong attitudinal change in favor of developing a way of writing that was/is personal and suitable to the individual rather than relying on a generic approach to the writing process. Instruction was aimed at developing an awareness of self and skills available to one as a writer. This measure reflects that the students did develop an understanding of themselves which was one of the major goals of instruction.

Item 7 stated: "Kindergarten through second grade children are not capable of writing coherently." (See Table 2.) In the original administration of the instrument, 9% of the respondents reported Agree; 9% reported Undecided; 52% reported Disagree; and 30% reported

Strongly Disagree. In the post-test administration, 4% of respondents reported Undecided; 48% reported Disagree, and 48% reported Strongly Disagree. With the recent emphasis on early childhood writing experiences, it appears that this group of students strongly believe that K-2 children have something to write about and can present it with some degree of order or coherence.

Item 10 stated: "Writing helps the writer to think through certain aspects of problems (Writing problems)." (See Table 2). In their pretest, 31% of the students reported Strongly Agree; 65% reported Agree, and 4% reported Disagree. After instruction, 44% reported Strongly Agree and 48% reported Agree; however 9% reported Strongly Disagree. The switch to Strongly Disagree was an unusual one; it indicated an attitude change inconsistent with the pretest and with instruction. Instruction was designed to lead students to recognize the objectives of planning and thinking before writing. In rechecking the surveys, it was not possible to determine if either respondent had chosen the opposite of their intended response; therefore, it was assumed that these two changed attitudes toward using writing as a problem-solving tool during the course of the instructional period. The expected change to Strongly Agree indicated

that more students viewed writing as a means of examining their experiences and their attitudes toward these experiences than before.

Item 11 was: "Writing does not require self-discipline." (See Table 2.) the pretest responses were: 4% Agree; 9% Undecided; 65% Disagree; and 23% Strongly Disagree. In the post-test administration, responses were: 13% Agree; 57% Disagree; and 30% Strongly Disagree. The greatest percent of responses for both pretest and post-test was recorded in Disagree and Strongly Disagree. Most of the students believed that writing requires work and involvement, even self-discipline, to be completed. The shift of responses to Agree was an interesting one because the instructional goal associated with this item was that of multiple drafting, multiple revisions of content, and proofreading several times before publishing. It could not be determined what caused this shift, unless students felt that their writing had improved in some ways that precluded thinking of it as a difficult task requiring self-discipline.

Item 14 stated: "Proofreading of material does not imply changing the content." (See Table 2.) This was a statement about a technical aspect of the writing process; it was used to determine if students were conversant with the revision techniques utilized throughout writing. In the

pretest, responses were spread across the scale: 9% reported Strongly Agree; 43% reported Agree; 9 % reported Undecided; 30% reported Disagree; and 9% reported Strongly Disagree. In the post-test administration, responses were: 26% Agree; 18% Undecided; 52% Disagree; and 4% Strongly Disagree. There was an apparent shift toward disagreement with this statement after the students engaged in typical editing crafts during the instructional period. Also, reports and peer response groups increased the expectation of this attitude change. This change demonstrated students' awareness of the possibilities for changes in all stages of the writing process. Instruction centered on writing as recursive, rather than linear.

Item 16 was: "Teachers need only make assignments and children will write." (See Table 2.) The changes in responses here did not correspond to expectations. The pretest responses were: 5% Agree; 4% Undecided; 52% Disagree; 39% Strongly Disagree. In the post-test administration, 5% shifted to Strongly Agree; 4% Agree; 0% Undecided; 52% Disagree and 39% Strongly Disagree. The students who shifted responses to the positive end of the scale obviously failed to grasp the principle of writing with their own students in the classroom as

an essential part of the techniques of teaching writing. The other students apparently already recognized that giving an assignment does not insure that students will complete it. Modeling of any skill that is expected of the students in the classroom will reinforce the importance of that skill to the children as they observe the teacher practicing what he/she teaches.

Item 17 was: "The teacher should write when the students write." (See Table 2.) The shift in responses here indicated that 39% of post-test respondents, as opposed to 21% of pretest respondents, favored this practice. Other responses for the pretest were: 43% Agree; 13% Undecided; 18% Disagree. Post-test responses were: 39% Strongly Agree; 39% Agree; 9% Undecided and 13% Disagree. Those students who reported Undecided or Disagree will probably not write in their own classrooms with their students and demonstrated that they have missed one of the important considerations of instructional objectives. As stated in the previous item, modeling appropriate writing behaviors is a tested method of effective instruction. Since several teacher-education majors in this class were preparing to teach at the secondary level, their expectations of teacher behaviors might differ from those of the students

preparing to teach elementary students.

Item 31: "I am a capable reader." (See Table 2.) This item was included on the basis of research which couples reading to writing. Reading one's writing aloud in peer-response groups prompted the relationship of reading to writing in this survey. For the pretest, 43% reported Strongly Agree; 52% reported Agree and 5% reported Undecided. For the post-test, 35% reported Strongly Agree; 57% reported Agree; 4% reported Undecided; and 4% reported Strongly Disagree. In light of the instructional objectives and the utilization of reading one's works aloud during the class, it seems unusual for one student to report Strongly Disagree. There is no way to determine what caused this student to record this response. The researcher does not believe that any student regressed in reading skills or came to believe that he/she could not read successfully based on the instruction given in the class.

Item 36 was: "I keep a daybook of interesting things that I encounter that would enhance my writing ideas." (See Table 2.) For the pretest, 13% responded Undecided; 70% responded Disagree and 17% responded Strongly Disagree. In the post-test administration, 18%

responded Agree; 17% responded Undecided; 48% responded Disagree; and 17% remained at Strongly Disagree. Instruction and discussion for this objective did not clearly establish in the students' schema the value of incorporating daily experiences into writing whenever appropriate. Those students who responded Agree after instruction had grasped the importance of not relying on memory alone to furnish ideas and topics for writing.

Item 43: "Writing requires thinking." (See Table 2.) Original responses to this statement were somewhat divided among the 23 respondents. A shift in the post-test to 48% Agree was a positive attitude change. Pretest responses were: 26% Strongly Agree; 35% Agree; 13% Undecided; 22% Disagree and 4% Strongly Disagree. In post-test responses, 22% reported Strongly Agree; 48% Agree; 9% Undecided; 17% Disagree; and 4% Strongly Disagree. The instruction failed in some way to thoroughly tie together the writing/thinking connection. The text contained an excellent explanation of how writing and thinking are related; therefore, it is not obvious what caused the respondents to continue to disagree with a relationship between writing for thinking. Common sense would indicate that students should agree with this

statement.

Item 49: "I do not need instruction in writing." (See Table 2.) Pretest responses were: 4 Strongly Agree; 57 Disagree and 39 Strongly Disagree. After instruction, the post-test responses were: 5% Strongly Agree, 13% Agree; 13% Undecided; 52% Disagree; and 17% Strongly Disagree. The reduction of the number of respondents reporting Strongly Disagree was the only favorable change for this item. This indicated that some students were more confident in themselves and their writing expertise, or at least that they were reporting more confidence than before.

Item 52: "High school students enjoy writing." (See Table 2.) Before the Writing for Thinking Course, 9% of respondents reported Strongly Agree; 18% reported Agree; 17% Undecided; 39% Disagree and 17% Strongly Disagree. The post-test showed a greater shift to negative attitudes: 9% reported Agree; 26% reported Undecided; 52% reported Disagree; 13% reported Strongly Disagree. Instruction was not designed to produce this impression; however, conferences and class discussion among the students may have influenced this shift in attitude. Some of the students, on different occasions, related very negative high school

experiences, or no high school experiences with writing at all, which had influenced them to have low self-esteem as writers when they began this course.

Item 53 was: "A writing program can begin at any grade level." (See Table 2.) Pretest responses were: 26% Strongly Agree; 70% Agree and 4% Disagree. Post-test responses were: 48% Strongly Agree, 48% Agree and 4% Undecided. Students demonstrated a stronger belief that writing can begin at any level. Part of the instructional objectives was to help Writing for Thinking students understand the need for writing skills at all levels and in all content areas. Students thereby developed the attitude that it is never too late to introduce writing to students. The implication for this attitudinal change is that as future teachers these students may be more willing to introduce writing skills and writing workshop activities into their own classrooms.

Item 58 stated: "Mathematics does not lend itself readily to writing assignments." (See Table 2.) The pretest responses were: 26% Agree; 48% Undecided; 17% Disagree; and 9% Strongly Disagree. Post-test responses were somewhat more favorable: 13% Agree; 17% Undecided; 48% Disagree and 22% Strongly Disagree. These prospective teachers'

attitude change resulted from their discoveries of the potential for writing assignments in all content areas. Specific examples of writing activities for mathematics were shared in the class through reports and lesson presentations. Those students who were preparing to teach mathematics were very interested in using all methods to help their students learn math skills and develop appreciation of math studies.

Item 60 was: "I need to develop professional writing skills." (See Table 2.) In the pretest administration, 35% reported Strongly Agree; 52% reported Agree; 9% Undecided, and 4% Disagree. In the post-test administration, 22% reported Strongly Agree; 48% reported Agree; 17% reported Undecided; and 13% reported Disagree. Students apparently had some difficulty with defining for themselves the meaning of professional writing skills. In part, this may be accounted for by the lack of recognition of teaching itself as a profession. It also could be related to their extensive course requirements to master the writing skills required for teachers. The Strongly Agree category changed from 35 percent to 22 percent. Since the course stressed that everyone should teach writing with whatever degree of capability he/she possessed, the feeling of strong agreement with the need for professional-level skills was

diminished over time.

Item 66 was: "I feel that I have nothing to improve (in my writing)." (See Table 2.) This statement reflected a common sense attitude toward writing skills. The shifts in responses were all among the Disagree and Strongly Disagree categories. Pretest responses were: 9% Undecided; 35% Disagree; 56% Strongly Disagree. Post-test responses were: 9% Undecided; 43% Disagree; and 48% Strongly Disagree. The shift here was anticipated. Fewer responses in the Strongly Disagree category indicated somewhat improved attitudes toward self and writing skills.

Finally, item 70 was connected to the technical aspects of teaching writing: "I will correct all my students' writing mistakes." (See Table 2.) This statement was designed to identify attitudes toward traditional methods of evaluation as opposed to writing process evaluation practices. The spread of responses across the scale indicated a wide range of attitudes. Pretest scores were: 13% Strongly Agree; 22% Agree; 30% Undecided; 26% Disagree; and 9% Strongly Disagree. Post-test scores were somewhat different: 4% reported Agree; 30% remained Undecided; 48% reported Disagree, and 18% reported Strongly Disagree. Instruction incorporated multiple drafting of

writing assignments, peer conferences; students' ownership of their work, and various methods of evaluation without emphasis on total marking as the dominant method. The writing process demonstrated prewriting, writing, revising/editing, proofreading, and publishing. The necessity of waiting for students to complete this process before grading was stressed. Also, strong emphasis on using positive reinforcement and skills mini lessons to help students write effectively were influential in the changes of attitudes with regard to this item.

Conclusion and Recommendations

How can the findings of this study be useful as research? First, writing classes and institutes around the United States are researching to determine how writers write as they do and how we may incorporate writing/thinking skills into all content areas and levels of instruction. An effort to assist education students who will be our future teachers to determine writing concepts and to develop open, healthy attitudes toward writing should give their own students greater opportunities to excel in writing and communication in the Information Age. Secondly, effective schools research has proved that students who are taught using teacher-modeling techniques benefit more than students who have no such

models. Teacher education majors who have examined their attitudes about writing/thinking and its/their role in the classroom and who have examined their self-concepts as writers are much more prepared to incorporate writing into their own classrooms without prejudicial attitudes and behaviors.

Finally, society will benefit from better teacher-writers and better student-writers. Businesses will be more inclined to hire and retain students who have developed broad writing skills and the ability to coherently express their ideas with sufficient vocabulary and mechanical/technical skills. Every bit of effort to narrow the gap between teaching practices and societal expectations advances education as a profession, teachers as professionals, and students as potential assets to our society.

Future uses of this instrument include continuing evaluation and restructuring of class presentations and materials in Writing for Thinking courses with regard to the areas of greatest interest and impact on future teachers. Another use will be the development of the instrument into a self-scoring assessment for practicing teachers. Finally, this evaluation can be successfully adapted to use in in-service activities, especially

writing across the curriculum which has become such a vital area of interest from kindergarten to colleges and universities.

Appendix A

Self-concept as a Writer Questionnaire

Please use the following scale to respond to the statements that follow:

1 Strongly Agree
2 Agree
3 Undecided
4 Disagree
5 Strongly Disagree

1. I am a capable writer.
2. Writers are born not made (taught).
3. All writers utilize a specific program which works best for them.
4. No professional writer could teach another person how to write.
5. Writers should learn a process which best suits their personalities.
6. Creativity is a prerequisite for writing.
7. Kindergarten through second grade children are not capable of writing coherently.
8. A writer must like to write.
9. Writing helps the writer to discover himself/herself.
10. Writing helps the writer to think through certain aspects of problems.
11. Writing does not require self-discipline.
12. Nothing one writes should be discarded.
13. A writing assignment usually requires only one good draft.
14. Proofreading of material does not imply changing of the content.
15. Writing takes talent.
16. Teachers need only make assignments and children will write.
17. The teacher should write when the students write.

18. Writing assignments are difficult to grade.

19. Writing specific genres (poetry, short stories, plays) is more difficult than writing essays.

20. Writing informally requires little planning.

21. I am insecure about my technical skills.

22. I feel comfortable with sharing what I write.

23. I believe that I would make a good partner for a peer group response session.

24. I know what makes a good writer.

25. I am confident when asked to critique another person's writing.

26. I believe that writing skills are not necessary to a person's success in most endeavors.

27. I like to write poetry.

28. I like to write short stories.

29. I like to write essays.

30. I like to write plays.

31. I am a capable reader.

32. I know what to expect students to be able to write about.

33. I plan on having a whole language classroom.

34. My students will keep journals.

35. I like to journal every day.

36. I keep a daybook of interesting things that I encounter that would enhance my writing ideas.

37. I read articles about teaching writing and writing in general.

38. Research writing is not my strongest point.

39. I can write about anything I see, feel, or think.

40. I like the finished products of my writing.

41. Writing should be incorporated across the curriculum.

42. There should be a stronger emphasis on writing essay answers to examinations.

43. Writing requires thinking.

44. I have little trouble with punctuation and spelling.

45. I can recognize subject/verb and pronoun/antecedent errors in my own writing.

46. Writing is an important skill for both teachers and students.

47. The future will require more writing skills of students.

48. The computer is an asset to writing in the classroom.

49. I do not need instruction in writing.

50. Early elementary students should be allowed to write freely without worrying about spelling, punctuation, or sentence structure.

51. Middle elementary students have difficulties choosing topics.

52. High school students enjoy writing.

53. A writing program can begin at any grade level.

54. Sequential skill acquisition is necessary to develop good writing.

55. No two writers write alike.

56. The audience for which I am writing is a strong factor in how and what I write.

57. I plan to use writing in all my classes when I teach.

58. Mathematics does not lend itself readily to writing assignments.

59. Not every student should be required to write.

60. I need to develop professional writing skills.

61. The writers I have read are role models for me.

62. I read often.

63. I hate writing.

64. I have difficulties with finding descriptive words.

65. I usually write long sentences.

66. I feel that I have nothing to improve.

67. I like to publish what I write.

68. I can encourage students to write better.

69. I think writing should be fun.

70. I will correct all my students' writing mistakes.

Appendix B

Table 1: Oneway Analysis of Variance Comparing Pretest and Post-test Response

	Item	F Prob
2.	Writers are born, not made (taught).	.0006*
3.	All writers utilize a specific program which works best for them.	.0003*
4.	No professional writer could teach another person how to write.	.0000*
5.	Writers should learn a process which best suits their personalities.	.0000*
7.	Kindergarten through second grade children are not capable of writing coherently.	.0089*
10.	Writing helps the writer to think through certain aspects of problems.	.0349*
11.	Writing does not require self-discipline.	.0000*
14.	Proofreading of the material does not imply changing of the content.	.0117*
16.	Teachers need only make assignments and children will write.	.0088*
17.	The teacher should write when the students write.	.0224*
31.	I am a capable reader.	.0015*
36.	I keep a daybook of interesting things that I encounter that would enhance my writing skills.	.0011*
43.	Writing requires thinking.	.0472*

49.	I do not need instruction in writing.	.0007*
52.	High school students enjoy writing.	.0099*
53.	A writing program can begin at any grade level.	.0065*
58.	Mathematics does not lend itself readily to writing assignments.	.0222*
60.	I need to develop professional writing skills.	.0432*
66.	I feel that I have nothing to improve (in my writing).	.0101*
70.	I will correct all my students writing mistakes.	.0448*

*Significant at .05

Appendix C

Table 2: Scale and Percentages of Responses for Pretest and Post-test Administrations for Significant Items.

Item	Pretest Percentages					Post-test Percentages				
Scale:	1	2	3	4	5	1	2	3	4	5
2	0	0	13	61	26	0	0	4	65	31
31	43	52	5	0	0	35	57	4	0	4
36	0	0	13	70	17	0	18	17	48	17
43	26	35	13	22	4	22	48	9	17	4
49	4	0	0	57	39	5	13	13	52	17
52	9	18	17	39	17	0	9	26	52	13
53	26	70	0	4	0	48	48	4	0	0
58	0	26	48	17	9	0	13	17	48	22
60	35	52	9	4	0	22	48	17	13	0

66	0	0	9	35	56	0	0	9	43	48
70	13	22	30	26	9	0	4	30	48	18
3	22	74	0	4	0	43	43	9	4	0
4	0	0	4	74	22	4	0	4	74	18
5	30	61	9	0	0	61	30	9	0	0
7	0	9	9	52	30	0	0	4	48	48
10	31	65	0	4	0	44	48	0	0	9
11	0	4	9	65	23	0	13	0	57	30
14	9	43	9	30	9	0	26	18	52	4
16	0	5	4	52	39	5	4	0	52	39
17	21	43	13	18	0	39	39	9	13	0

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